

HopStart Round 2

Introduction

1. Problem Our Company Solves

Echo Shield provides clarity when financial markets experience sudden, unexplained volatility. When a stock or crypto price spikes or crashes due to a viral deep-fake video, short-term traders often struggle to find the truth.

- **Explaining Market Anomalies:** We analyze the AI-generated fake videos behind sudden market moves to provide traders with a clear explanation of the actual source.
- **Providing the Real Picture:** We cut through the confusion caused by deepfakes to give short-term consumers the authentic market situation, helping them avoid trading based on synthetic lies.
- **Source Verification:** We don't just say a video is fake; we explain how it is being used to manipulate the current market movement, giving traders back their decision-making edge.

2. Background of Problem

In today's high-speed trading environment, a single AI video can trigger a massive market reaction in seconds.

- **Weaponized Volatility:** Bad actors now use hyper-realistic AI videos to create artificial market movements.
- **The Information Gap:** When an anomaly happens, traders look for the "why." If they find a convincing deepfake first, they make bad moves. There is currently no tool that connects sudden market volatility to the verification of the video driving it.
- **Vulnerable Short-term Traders:** Short-term consumers rely on immediate information. Without a way to verify the "source" of an anomaly, they are the first to lose money when AI fakes distort the market.

3. Relevant Macro and Market Trends

- **Volatility as a Target:** Financial volatility is being increasingly manipulated by AI. As AI video tech (Sora, Veo) matures in 2026, the frequency of these "artificial anomalies" is skyrocketing.
- **The Speed of Retail Trading:** With 27M+ mobile accounts on platforms like Robinhood, the time between seeing a video and making a trade has shrunk to seconds. Market participants now demand "truth at the speed of volatility."
- **Regulatory Focus on Market Integrity:** Regulators are shifting from general anti-fraud to specifically targeting "AI-driven market manipulation." Echo Shield fits perfectly into this trend by providing transparency for retail consumers. **Example include:**

Customer and Market Analysis

1. Market Definition & The Problem

Target Market: The global population of active retail investors in the stock and cryptocurrency markets.

The Problem: In an era of rampant AI-generated video (Deepfakes), retail traders are increasingly vulnerable to market manipulation. A single fake video of a CEO or policy-maker can trigger massive liquidations or irrational "FOMO." Echo Shield solves the trust crisis by allowing users to distinguish Genuine Market Drivers from synthetic noise.

1). Core Customers

Active short-term traders, crypto/contract traders, and social-media-driven investors. These are tech-savvy, mobile-native individuals who operate in high-volatility environments. They rely on real-time news and social media signals (X, Discord, Telegram) to make split-second financial decisions, making them the primary targets for AI-driven misinformation.

2). Market Segmentation

Segment	Demographics	Core Needs	Expectations
The News-Driven Scalper	25-45 yrs; active on Robinhood/Webull.	Instant verification of "breaking news" videos.	Sub-second response time; mobile-native experience.
The Social-Signal Chaser	20-35 yrs; heavy Gen Z/Millennial presence.	Verifying if a video shared by a "Finfluencer" is authentic.	Deep integration with social apps; "Share to Verify" feature.
The Crypto/Contract Trader	Global; operates in high-leverage, low-regulation zones.	Protection against "Rug Pulls" and fake project announcements.	Multi-platform support (Telegram/Discord focus); high fraud detection rate.

Robinhood (Jan 2026): [Operating Data Report](#)

FINRA Foundation (2025): [Investor Behavior Research](#)

NASAA (2025): [Top Investor Threats](#)

2. Size of Initial Target Segment (SOM)

Strategy: Mobile-First Entry While our vision is to become the universal "Trust Layer" for all financial terminals, our Initial Target Segment (SOM) is the U.S.-based, mobile-active retail trader who relies on social media for financial intelligence.

- Market Data Points (2025-2026):
 - Robinhood (Jan 2026): Reports 27.2 million funded accounts with over 80% of activity occurring via mobile app ([Source](#)).
 - FINRA (2025): 61% of younger investors rely on social media for investment decisions ([Source](#)).
 - Initial Segment Size: We aim to capture 2%-5% of the active mobile retail trader base, representing approximately 550k to 1.3 million core users.
 - Revenue Potential: At an average subscription of \$150/year for real-time verification, this segment represents an immediate \$80M - \$190M ARR opportunity.
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3. Relevant Stakeholders

Stakeholder Group	Role & Interest
Retail Traders (End Users)	The primary beneficiaries who seek speed, accuracy, and peace of mind to ensure their trades are based on reality.
Founding Team (JHU MSIL)	Leveraging Data Science expertise to maintain a technological lead in the AI "Arms Race" between deepfake generation and detection.
App Stores (Apple/Google)	Critical distribution partners that dictate user acquisition friction and subscription compliance.
Finfluencers (KOLs)	Both a growth engine and a stakeholder; they use Echo Shield to verify content before sharing, thereby protecting their own credibility.
Regulators (NASAA/SEC)	While Echo Shield is a private tool, its mission aligns with regulatory efforts to combat AI-driven market manipulation (Ref: NASAA 2025).

Solution

Proposed Solution Explained

A. Market Insights: Why Generic Solutions Fail in Finance

We are currently witnessing a critical shift in the AI landscape: the transition from creative experimentation to weaponized synthetic media. As generative AI tools become commoditized, the economic incentive for malicious actors has shifted toward large-scale financial manipulation.

- **The Trend of Inevitable Saturation:** According to the [Sumsb Identity Fraud Report 2023](#), deepfake incidents globally increased by 1,000% between 2022 and 2023. This exponential growth suggests that synthetic media is no longer a peripheral threat but a primary vector for financial crime. Furthermore, [Gartner predicts](#) that by 2026, 30% of enterprises will no longer consider face biometrics as a standalone secure authentication method due to the prevalence of AI-generated forgeries.
- **The "Liar's Dividend" in Finance:** The proliferation of deepfakes creates what legal scholars [Chesney & Citron \(2019\)](#) call the "Liar's Dividend." In a market saturated with fakes, even legitimate breaking news can be dismissed as "fake," leading to delayed reactions and increased volatility. Echo Shield addresses this systemic trust-gap by providing a definitive, millisecond-level verification layer that protects market integrity.

B. Core Technological Insights: The Dual-Track "Funnel" Architecture

Echo Shield utilizes a multi-layered "funnel" approach to maximize detection speed without sacrificing accuracy. This architecture ensures that computational resources are only spent on videos that pose a genuine market threat.

- **Level 1: Multi-modal Saliency Filtering (The Entry Layer)** Our ingestion engine employs two parallel tracks to determine if a video is market-relevant:
 - **Track A (NLP/Audio):** Using OpenAI Whisper for near-instant transcription, we scan for market-moving keywords like "earnings," "merger," or "sanctions."
 - **Track B (Visual Saliency):** To handle "visual-only" breaking news (e.g., refinery explosions or industrial accidents), we deploy lightweight Computer Vision models (YOLO/MobileNet) to detect high-impact visual triggers such as fire, smoke, or military movement.
- **Level 2: Lightweight Screening (The Speed Layer)** For flagged videos, we deploy **MesoNet**, a compact convolutional neural network. This layer is optimized for detecting "micro-inconsistencies" in facial compression or unnatural pixel gradients with near-zero

latency. For non-human videos, this layer focuses on spatiotemporal anomalies, identifying if the physics of the event follows natural fluid dynamics.

- **Level 3: Deep Multimodal Verification (The Accuracy Layer)** High-risk content is routed to our most robust models. We utilize **EfficientNet** for high-resolution spatial analysis and **LipForensics** to verify that phonemes (sounds) and visemes (mouth shapes) are perfectly synchronized—a common failure point in sophisticated financial forgeries.

C. Meeting Customers' Needs: Actionable Financial Intelligence

Echo Shield transforms raw video data into a definitive decision-making tool for two primary user groups:

- **Institutional Traders & Hedge Funds:** We act as a digital circuit breaker. By providing a verification signal with millisecond response times, we allow algorithms to pause trading on specific tickers the moment a high-probability deepfake is detected, preventing "flash crash" losses.
- **Institutional Compliance & PR Teams:** We provide a Sentinel Dashboard offering an "Authenticity Score" and automated forensic reports. This allows human analysts to quickly debunk false narratives before they impact the company's valuation or public reputation.

Value Proposition

A. The Inadequacy of Current Solutions: The "Reaction Gap"

Current solutions fail not because they lack AI, but because they lack **Financial Context** and **Operational Urgency**.

- **The Information Latency (Refutation Lead Time):** Traditional refutation relies on manual fact-checking. By the time a "debunking" post appears on social media or a TV anchor clarifies a statement, the market has already moved. Echo Shield provides an automated truth-signal that arrives minutes or hours before traditional media can react.
- **The Signal Gap (Dataset Limitations):** Generic models are trained on shallow datasets and often fail to recognize the specific visual and acoustic environments of financial news (e.g., specific studio lighting, CEO speech patterns). Echo Shield builds its "Signal Wall" using a proprietary dataset of historical financial broadcasts to fine-tune our models.

B. Value to the Initial Target Market

For our primary users, the value is **"Information Certainty as a Competitive Edge"**:

- **Risk Mitigation:** Firms can automate their "pause" response to high-risk media, protecting them from artificial volatility.
- **Selective Awareness:** By filtering for market-moving keywords and visual triggers, we eliminate "alert fatigue," ensuring traders only react to content that poses a quantifiable threat to their positions.

Solution Life Cycle

The Echo Shield operational cycle is designed for maximum throughput and minimum latency:

1. **Targeted Ingestion:** Automated ingestion engines and API integrations monitor high-authority financial news-streams and verified social accounts.
2. **The Multi-modal Funnel:** Videos are processed through the Dual-Track system (NLP Keyword Filtering and Visual Saliency Detection). Irrelevant content is discarded immediately to save computational power.
3. **Tiered Verification:**
 - **Level 2 (Speed):** MesoNet performs a rapid scan for macro-inconsistencies and facial artifacts.
 - **Level 3 (Accuracy):** High-risk clips are escalated to EfficientNet and LipForensics for pixel-level and phoneme-sync verification.
4. **Actionable Alerting:** Confirmed threats are pushed via API or dashboard alerts with a definitive "Authenticity Score," enabling immediate risk mitigation.

Full Life Cycle Use Case: The "Fake CEO" Scenario

T=0s (Detection): An AI-generated video of a Fortune 500 CEO announcing an unexpected SEC investigation is uploaded to a high-traffic social account.

T+2s (Filtering): Echo Shield's ingestion engine captures the stream. The NLP layer identifies the keyword "SEC investigation" and tags it as "Critical Priority."

T+5s (Analysis): The MesoNet layer detects an 85% probability of facial artifacting. Simultaneously, LipForensics identifies that the lip movements are slightly out of sync with the audio's professional terminology.

T+8s (Mitigation): An automated "High Risk" alert is sent to our clients' trading algorithms. A "Digital Circuit Breaker" is triggered, pausing the client's exposure to that specific stock.

T+15s (Outcome): While the broader market begins a chaotic sell-off, Echo Shield users have already neutralized their risk, saving millions in potential "panic-selling" losses.

Why Our Solution is Superior

- **Domain-Specific Accuracy:** While competitors use generic datasets, Echo Shield is fine-tuned on a **proprietary dataset** comprising financial news settings and the speech patterns of global business leaders.
- **The Efficiency of the "Funnel":** By discarding irrelevant data early through our Dual-Track system, we achieve lower operational costs and faster response times than competitors who run "heavy" models on all incoming data.
- **Seamless Infrastructure Integration:** Our focus on a direct verification signal allows us to plug into existing financial infrastructure without requiring clients to change their workflow. It is a "set-and-forget" security layer for the modern trading desk.

Validation of Solution

Echo Shield is currently in the **Initial Concept Validation** phase. Our current findings are based on targeted, qualitative interviews within a select group of active individual investors.

1. Preliminary Customer Feedback (Retail Segment)

To test our core value proposition, we conducted a series of primary interviews with individual day-traders and retail investors.

- **Price Sensitivity & Willingness to Pay:** Our initial research indicates a clear market for a "Personal Sentinel" tier. Respondents identified a price point of **\$8 to \$10 per month** as a reasonable investment for a real-time verification tool that protects their personal portfolios from flash-volatility.
- **Problem-Solution Fit:** 100% of the participants confirmed that "unverified viral videos" are a major source of anxiety during trading hours, confirming that our tool addresses a genuine emotional and financial pain point.

2. Current Limitations & "First-Degree" Bias

We acknowledge that our current validation set consists of individuals within our extended professional and academic networks. While this provided high-quality "insider" feedback from active traders, we recognize two key gaps:

- **The "Stranger" Gap:** We have not yet interviewed "blind" or completely unrelated potential customers to eliminate confirmation bias.
- **The Institutional Gap:** While we have strong data for the retail market, we have yet to conduct formal interviews with institutional risk officers or hedge fund managers.

3. Future Validation Plan (The Roadmap)

To move beyond our initial findings, we have outlined the following steps for the next **3 to 6 months**:

- **Step 1: Unbiased Market Testing (Broad Outreach)** We will launch a landing page with a "Waitlist" sign-up to test interest from the general public. By running targeted ads to "unrelated" trading communities, we will measure the conversion rate of strangers into potential leads.
- **Step 2: Price Elasticity Testing** We will A/B test different pricing tiers (\$10/mo vs. \$49/mo) to see if professional traders or small-scale fund managers are willing to pay a premium for higher-frequency API access and visual saliency features.
- **Step 3: Institutional Outreach** Our next milestone involves reaching out to 10-15 compliance professionals at mid-sized brokerage firms to validate our "Sentinel Dashboard" concept and gather feedback on institutional security requirements.

Market Plan

Market Entry Strategy and Sales Plan

Echo Shield adopts a focused beachhead strategy by targeting active short-term traders and cryptocurrency investors, who rely heavily on real-time information and are particularly vulnerable to AI-generated misinformation. These users face frequent, high-stakes decisions, making them more likely to adopt tools that reduce uncertainty and financial risk.

Customer acquisition is driven by event-based engagement, community integration, and influencer amplification. During periods of abnormal market activity or viral financial content, the platform publishes real-time verification reports to capture attention at moments of urgency. At the same time, Echo Shield builds trust within trading communities such as Reddit and Discord, while influencer partnerships reinforce credibility and demonstrate real-world value.

Business Model

Echo Shield operates on a freemium Software-as-a-Service (SaaS) model designed to support both rapid user growth and scalable recurring revenue. Users can access basic verification features for free, lowering the barrier to entry and encouraging initial adoption.

Revenue is generated through monthly subscriptions, reflecting the continuous need for real-time verification in financial markets. The model initially focuses on individual retail users but is structured to expand toward professional traders and institutional clients, with higher-tier plans and enterprise solutions introduced as the product matures.

Pricing

The platform adopts a two-tier pricing structure consisting of a free tier and a premium subscription priced at \$9.9 per month. The free version provides basic verification functionality, while the premium tier offers advanced analysis, real-time alerts, and deeper insights into the relationship between financial media and market movements.

The pricing is informed by competitive benchmarking within the financial software market. Most comparable tools are priced above \$10 per month, such as TradingView (starting at \$12.95/month) and Benzinga Pro (approximately \$197/month for advanced features). By positioning Echo Shield slightly below the lower end of this range, the product remains accessible to retail users while still signaling strong value.

This strategy balances affordability and competitiveness, allowing the platform to attract price-sensitive users while differentiating itself as a cost-effective alternative. At the same time, the pricing remains low relative to potential trading losses, reinforcing its positioning as a practical risk management tool and supporting user conversion.

Validation of Pricing

The pricing strategy has been validated through user interviews and value-based analysis. Target users expressed strong concern about AI-generated misinformation and indicated a willingness to pay approximately \$10 per month for a reliable verification tool.

This aligns with the product's value proposition, as even a single avoided loss can significantly exceed the subscription cost. In addition, benchmarking against comparable financial tools shows that the pricing is competitive and appropriately positioned for broad adoption.

Validation of Sales Plan

The sales plan is supported by both primary research and observed user behavior. Interviews confirm that investors rely heavily on social media and are influenced by online financial content, validating the focus on community-driven and influencer-based acquisition channels.

The freemium conversion model is also supported by user preferences, as most users prefer to test a product before paying. Combined with the relatively low subscription cost and strong perceived value, this makes the conversion process both practical and economically rational.

Follow-on Markets

Echo Shield's initial focus on retail traders provides a foundation for expansion into larger and more valuable markets. As the platform matures, it will extend to professional traders, small funds, and eventually enterprise clients such as financial institutions and compliance teams. These segments require higher accuracy, integration capabilities, and advanced analytics, which will be developed over time.

Beyond finance, the core technology can be applied to industries such as media, corporate communications, cybersecurity, and government, where misinformation and deepfakes pose significant risks. Geographic expansion will begin in North America and later extend to Asia and Europe, supported by localization and regulatory adaptation.

The scalability of the business is driven by its core technological capabilities, including AI-based detection models, real-time processing, and the ability to correlate media signals with market behavior. As data accumulates, the platform builds a defensible advantage through improved accuracy and network effects.

Validation of Follow-on Markets

Following the successful penetration of the high-frequency trading and BFSI (Banking, Financial Services, and Insurance) beachhead, Echo Shield is positioned to capture a massive horizontal market. The validation for this expansion is rooted in explosive market growth, high-stakes economic risks, and mandatory regulatory shifts.

1 Market Scale and Growth Trajectory

The global Deepfake AI market is projected to surge from **\$764.8M in 2024 to \$19.8B by 2033**, representing a staggering **44.3% CAGR**.

- **Enterprise Expansion:** The Enterprise Online Reputation Management market—specifically for Global 2000 companies—is estimated to reach **\$7B–\$8B by 2026**. Echo Shield's ability to defend corporate brands against executive impersonation represents a high-margin follow-on opportunity.
- **Public Sector Demand:** Strategic partnerships between agencies like **DARPA** and the Digital Safety Research Institute (DSRI) validate the government's urgent need for synthetic media forensics, opening doors for large-scale public sector contracts.

2 Validation through Economic Necessity

The transition from "experimental" to "mission-critical" software is driven by the mounting cost of inaction:

- **The \$40B Crisis:** AI-driven fraud losses in the U.S. are projected to hit **\$40 billion by 2027**. The immediate demand is highlighted by the fact that North American firms lost over **\$200M** to deepfake-enabled fraud in Q1 2025 alone.
- **Existential Threat Perception:** Market research indicates that **85% of finance professionals** now view deepfakes as an "existential threat" to business security. This shift in perception ensures that deepfake detection has moved from an optional security layer to a core, non-negotiable budget item.

3 Regulatory and Compliance Tailwinds

The follow-on market is further validated by a tightening global legal framework that mandates the adoption of Echo Shield's technology:

- **Global Mandates:** The **EU AI Act** (with deepfake provisions in force as of August 2025) and updated **FDIC guidelines** now require financial institutions to implement high-risk AI monitoring.
- **The Echo Shield Advantage:** Our proprietary AI fingerprinting and traceability protocols are specifically engineered to meet these emerging global compliance standards, providing a "moat" that allows for rapid scaling across regulated industries.

Operational Plan

1. Critical Success Factors and Challenges

- Success Factors:
 - Verification Speed: Achieving sub-second analysis to keep up with high-frequency trading.
 - Explanation Clarity: Not just flagging "fake," but explaining *why* the market moved and the actual source of the anomaly.
 - Mobile Integration: Being where the traders are (Robinhood, Twitter, Telegram) through seamless share-sheet integration.
- Challenges:
 - The AI Arms Race: Keeping our detection models ahead of rapidly evolving generative AI like Sora/veo.
 - False Positives: Avoiding "crying wolf" during real, high-volatility market events.

2. Key Assumptions

- Market Vulnerability: We assume deepfakes will become the primary tool for market manipulation over the next decade.

- User Willingness to Pay: We assume short-term traders value "truth" enough to pay for a subscription that protects their capital from artificial volatility.
- Data Availability: We assume access to real-time market data and social media feeds remains open for analysis.

3. Barriers to Entry

- Algorithmic Moat: Developing high-speed, finance-specific detection models (leveraging our JHU Data Science background).
- Data Propriety: Building a unique dataset of financial-specific deepfakes used in market manipulation.
- First-Mover Trust: Establishing Echo Shield as the "Truth Anchor" in the community, making it hard for late-comers to steal user trust.

4. Regulatory Requirements

- Data Privacy: Compliance with GDPR and CCPA since we handle user data and mobile interactions.
- Financial Integrity: Ensuring our "Trust Scores" are not seen as financial advice (Investment Advisers Act compliance).
- App Store Policies: Meeting Apple/Google requirements for financial security and anti-fraud applications.

5. Reimbursement Strategy

- *Note: In a non-medical context, this refers to how we get paid or recover costs.*
- Freemium Subscription: Basic verification is free; real-time anomaly alerts and deep-dive source explanations are behind a "Premium" paywall (\$15-\$20/month).
- Tiered Pricing: Specialized plans for high-leverage contract traders who need higher frequency limits.

6. Intellectual Property

- Trademarks: Registering the "Echo Shield" name and logo.
- Proprietary Algorithms: Protecting our unique detection and explanation models as trade secrets or patents.
- Copyright: Protecting the specific UI/UX design of our "Anomaly Explanation" dashboard.

Cost

1. Source of Funds

Where will your initial financing come from? Are you investing your own money in the business? Do you have a credit card or line of credit? What other types of funds do you expect to receive, and when?

Echo Shield's initial funding is expected to come from a staged mix of founder capital, non-dilutive university funding, and angel investment. We expect to contribute approximately \$2,000 of founder capital at launch to cover early setup, testing, and pilot operations.

We then plan to pursue approximately \$5,000 through Johns Hopkins competitions and entrepreneurship funding during months 1-4 as early non-dilutive capital. Around months 6-7, we expect to seek approximately \$10,600 in angel funding to support formal launch, stable operations, and the remaining first-year funding gap.

Family-and-friends funding and debt financing remain contingency options rather than part of the primary funding plan.

2. Revenue Timeline

How long do you expect it will be before you have revenue? How long do you expect it will be before you are cash flow positive?

Echo Shield is expected to complete MVP development and pilot testing during months 0-3, with no revenue during that period. During months 4-6, after the initial database build and closed beta launch, we may begin small-scale paid pilot testing. More consistent subscription revenue is expected during months 7-12 following formal launch.

Under the current model, we target cash-flow break-even within 18-24 months on a basis that already includes a baseline X promotion budget of \$50 per month. Based on an initial subscription price assumption of \$9.99 per month and Stripe's standard transaction fee of 2.9% plus \$0.30, net monthly revenue per paying user is estimated at approximately \$9.40.

At the current stable operating cost base of \$2,259 per month, approximately 241 paying users would be sufficient to cover the current steady-state cost base. Broader paid acquisition costs are not yet included in this break-even estimate.

3. Funding Needed and Use of Funds

How much money will you need to get this done and accomplish the key steps that you described above? How will you spend it?

Under the current version of the model, Echo Shield's quantified first-year funding requirement is \$17,600. This amount includes a baseline X promotion budget of \$50 per month, but it does not yet include broader paid acquisition or scaled marketing programs.

Specifically, the funding would cover \$1,113 for trial, cold-start build, and baseline promotion, \$13,554 for six months of stable operations, \$250 for testing and market validation, \$500 for legal and baseline compliance, \$456 for accounting and administrative support, and \$1,727 as a reserve.

At this stage, the funding request is designed to support product validation, initial buildout, baseline brand visibility, and near-term operating continuity rather than long-term expansion, equipment purchases, or team scaling.

4. Other Costs

Can you estimate other relevant costs such as R&D, product and market testing, and administrative expenses?

In addition to core operating costs, Echo Shield has currently quantified three categories of other costs. Product testing, user interviews, and market validation are estimated at \$250 based on a minimum effective Maze research budget. Legal setup and baseline compliance are estimated at \$500 based on a one-time company formation and documentation cost. Accounting and basic administrative support are estimated at \$456 for the first year based on a baseline bookkeeping and administrative support subscription.

MVP development and model tuning are not listed separately here because they are already incorporated into the stage-based operating cost model and are therefore not double counted.

5. Operational Costs

What are the relevant costs to produce and deliver your product or service? What are the relevant costs to acquire customers? Can you estimate unit profitability?

Echo Shield's operating costs are modeled across three stages: trial, cold-start database build, and stable operations. During the trial stage, total monthly operating cost is estimated at \$124, including \$44 in fixed costs, \$30 in AI compute, and a baseline X promotion budget of \$50. During the cold-start build stage, average monthly operating cost is estimated at \$247, including \$44 in fixed costs, \$150 in AI compute, \$3 in storage, and the same \$50 X promotion budget, for an estimated 90-day build cost of approximately \$741.

During stable operations, total monthly operating cost is estimated at \$2,259, including \$2,043 in fixed costs, \$150 in AI compute, \$16 in storage, and \$50 in baseline X promotion. On an annualized basis, this corresponds to approximately \$27,108 per year. The largest cost driver in stable operations is formal financial market data, while AI inference and storage remain variable costs linked to video processing volume.

Current sales and marketing cost modeling includes only the baseline X promotion budget described above. Broader paid acquisition costs are not yet included. On the current basis, unit profitability can be estimated using a \$9.99 monthly subscription price and an approximately \$9.40 net monthly revenue per paying user after Stripe fees.

Teams

Echo Shield is led by a four-person founding team: Qiyu Lu, Rong Zhao, Chenye Shen, and Changhao Liao. We have a clear division of responsibilities across the company. Qiyu Lu is responsible for technology development and system implementation, including platform architecture, data processing workflows, and the deployment of AI detection capabilities. Rong Zhao is responsible for UI and user experience design, ensuring that the platform communicates verification results and risk signals in a clear, intuitive, and low-friction way across mobile and web interfaces. Chenye Shen and Changhao Liao are responsible for operations, including user validation, content operations, community outreach, market engagement, and early-stage growth execution. Together, we cover the three core functions required to build and launch Echo Shield: technology, product design, and operations.

Our background combines computer science, AI technology, and financial domain knowledge, which is highly relevant to the problem we are solving. Building Echo Shield requires more than technical detection capability alone. It also requires the ability to translate AI outputs into practical user experiences and connect those outputs to the real decision-making context of traders and investors. This is where our team structure becomes a major advantage. On the technical side, we can build and iterate the core detection and infrastructure systems. On the product side, we can turn complex credibility and risk signals into usable product features. On the operations side, we can ensure that the product remains grounded in real user behavior, market demand, and adoption strategy.

We believe this combination makes us well suited to pursue the opportunity behind Echo Shield. The problem we are addressing sits at the intersection of AI-generated misinformation, financial risk, and real-time decision-making, so it requires a team with both technical depth and market awareness. Our team is positioned to connect technical development, user experience, and market execution in a coordinated way. Although we are still at an early stage, we already have the cross-functional capability needed to validate the product, enter the market, and continue scaling the business over time.